Fermilab Today

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Calendar

Monday, Oct. 27
2:30 p.m.
Particle Astrophysics Seminar - Curia II
Speaker: Wan-il Park, Korea Advanced Institute of Science & Technology
Title: Thermal Inflation, Gravitational Waves, Baryogenesis and Dark Matter
3:30 p.m.
DIRECTOR'S COFFEE BREAK - 2nd Flr X-Over
4 p.m.
All Experimenters' Meeting - Curia II
Special Topics: Construction of the New Booster Multipole Correctors at TD; JASMIN T-972 2008 Run; CDF Computing Report

Tuesday, Oct. 28
10:45 a.m.
Town-Hall Meeting - Auditorium
Speaker: Rolf-Dieter Heuer, DG Designate, CERN
Title: 10-minute Presentation and 60-minute Q&A Session
3:30 p.m.
DIRECTOR'S COFFEE BREAK - 2nd Flr X-Over
THERE WILL BE NO ACCELERATOR PHYSICS AND TECHNOLOGY SEMINAR TODAY

Click here for NALCAL, **a weekly calendar with links to additional information.**

Weather

Chance of rain/snow 42°/27°

Extended Forecast
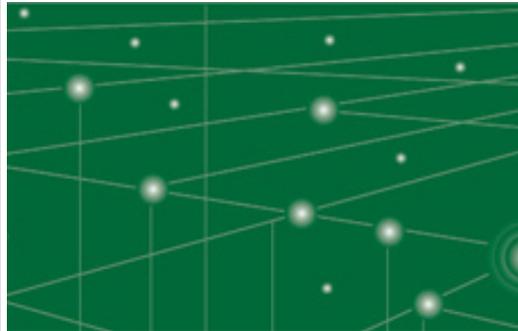**Weather at Fermilab**

Current Security Status

Secon Level 3

Wilson Hall Cafe

From *symmetry breaking*

Computing in a grid or a cloud

An artist rendering of the Grid.

In the past year or two, cloud computing (in which computing services are all extracted from the "cloud" of the Internet) has garnered a lot of attention in the press. We talked about its application to high-energy physics here back in May.

Meanwhile, high-energy physics has been working hard to develop grid computing, and one fruit of that development is the Worldwide Large Hadron Collider Computing Grid, which just launched on Oct. 3, 2008.

With two relatively new models of computing floating about, many commentators have been discussing the pros and cons of each, as if it were a face-off with only one likely to be the victor in a fight for dominance, and with cloud computing being a newer concept, some even argue that cloud computing will supersede grid computing. However, an analysis by Ignacio Martín Llorente of the Distributed Systems Architecture Research Group in Madrid, argues that the two technologies are different and complementary. (Thanks to International Science Grid This Week for the link.)
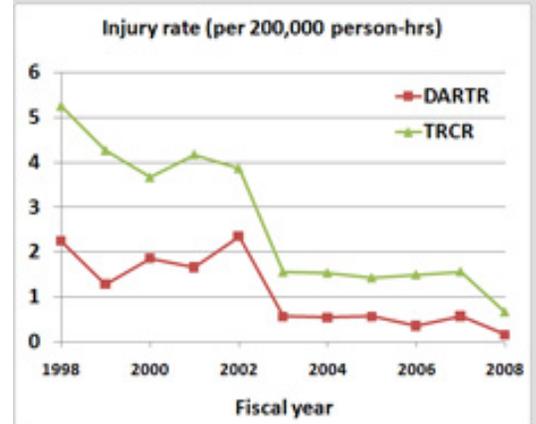
He says that grids are all about interoperability, allowing a lot of different resources to be federated–that is, to come together to work effectively. A cloud, on the other hand, is principally a way to virtualize services (such as computation power or data storage), or take them away from your local place of work and put them wherever they most conveniently sit but still available to you at all times.

Read more

Photo of the Day

Safety Tip of the Week

Keep up the good work

The graph shows Fermilab's OSHA-recordable injury rates over the last 11 fiscal years. DART refers to cases involving days away, restricted or transferred. TRC refers to any case that goes beyond first aid. DART is a subset of TRC.

FY2008 was Fermilab's lowest year for occupational injuries. There were 96 cases reported to the Medical Department. Twelve were recordable and three of these were DART cases. This resulted in TRC and DART rates of 0.66 and 0.16, respectively. Though we narrowly missed DOE's ambitious "best-in-class" goal of 0.65 for TRC cases, we actually beat their mark of 0.25 for DART cases.

Nearly 80 percent of FY2008 accidents were from slips, overexertion, insect stings and bites and contact with other objects. About half of the 25 slip-related cases were associated with slippery surfaces, typically ice. Most of the rest were missteps, usually on stairs. The 18 injuries that resulted from being struck by or striking an object affected an upper extremity or the head, often resulting in an abrasion. These typically were caused by a person running into something. Most of the 17 overexertion cases produced a strain or pain in the spine or an upper extremity. Finally, we had 12 insect stings, mostly from unexpected wasp encounters.

This year's results suggest Fermilab employees and users have made safety a priority in their work. Remember to think about potential hazards and implement safety precautions before performing each task. This analysis gives us a short list of safety precautions to keep in mind for FY2009.

- Remain aware of your surroundings. Watch for spills on floors.
- In winter, look out for ice. Use handrails, walk in cleaned and salted areas. Drive slowly.
- Take stairs one at a time and use handrails.

Monday, Oct. 27
- *Potato leek soup
- Monte cristo
- *Savory roasted chicken quarters
- Alfredo tortellini
- Chicken ranch wrapper
- Assorted sliced pizza
- Szechuan style pork lo mein

Wilson Hall Cafe Menu

Chez Leon

**Wednesdsay, Oct. 29
Lunch**
- Magnolia chicken jambalaya
- Chocolate pecan bourbon tart

**Thursday, Oct. 30
Dinner**
- Closed

Chez Leon Menu
Call x4598 to make your reservation.

Archives

Fermilab Today

Result of the Week

Safety Tip of the Week

ILC NewsLine

Info

Fermilab Today
is online at:
www.fnal.gov/today/

Send comments and suggestions to:
today@fnal.gov

Autumn colors

TD's Lily Litvinenko submitted this photo of autumn's natural color palette.

In the News

Underground lab probes how matter licked antimatter
From *Wired*, Oct. 24, 2008

Everything in our universe is made of matter, but a century of physics has revealed that at the beginning of time, an exactly equal amount of antimatter existed. Then, two seconds after the Big Bang, something changed and suddenly there was more matter than antimatter. What we don't know is how matter won and opened the door to existence as we know it.

Now, in a former salt mine next door to a nuclear weapons waste repository, Stanford physicists are completing the installation of a new particle detector, the Enriched Xenon Observatory 200, that they hope will provide the answer to that question.

"We're in the land where the theorists can't really tell us what to expect," said Jesse Wodin, a researcher at the Stanford Linear Accelerator Lab who is working on the EXO-200. "No one has done this at this scale."

When it's fully installed next year, the EXO-200 will be one of, if not the most, sensitive radiation detectors in the world. Located inside the Department of Energy's Waste Isolation Pilot Plant near Carlsbad, New Mexico, the new underground lab will be tracking the behavior of neutrinos, mysterious particles that hardly interact with anything. Though fundamental to our understanding of the universe, we know next to nothing about them.

The new detector will try to fill in the picture, determining basic features of the particles, like their mass and whether or not they, unlike almost all other particles, are their own antiparticles.

Read more

- Know your personal limits. Get a checkup before performing tasks out of your known comfort range. Follow proper lifting procedures and ask for help if needed.
- Do your best to avoid contact with wasps and other insects.

Accelerator Update

Oct. 22-24
- Four stores provided ~26.5 hours of luminosity
- Cryo experts repair stuck Kautzky valve
- LRF3 power amplifier replaced
- Store 6507 aborted: CAMAC power supply failed

Read the Current Accelerator Update
Read the Early Bird Report
View the Tevatron Luminosity Charts

Announcements

Have a safe day!

Town hall meeting with future director general of CERN
Fermilab will host an open town hall meeting with Rolf-Dieter Heuer, the designated director general of CERN, Oct. 28, at 10:45 a.m. in Ramsey Auditorium, followed by a reception in the WH Art Gallery (2nd floor) at noon. The town hall meeting includes a 10-minute talk by Heuer and a 60-minute Q&A session. Everyone is invited. Heuer would like to meet with all members of the U.S. particle physics community.

Flu shots available
If you are an active full time, active term, or active temporary Fermilab employee you are eligible for a free flu shot. Please contact the Medical Office at x3232 to schedule a date and time.

DreamWeaver CS3: Advanced Nov. 5
An advanced course in Dreamweaver CS3 will take place Nov. 5. Attendees can learn to establish database connectivity, work with record sets, create interactive page elements and administer database records and Web sites. Attendees can also learn to create a user authentication system. Learn more and enroll

Additional Activities